

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

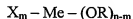
Listing of Claims:

Please amend the claims as follows:

1.-20. (Cancelled)

21. (Currently Amended) A process for the preparation and the deposition of a vitreous film on a substrate comprising:

preparing a solution in an aprotic solvent of at least one alkoxide corresponding to the formula

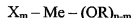


where Me is a metal selected from the group consisting of Group 3⁺, 4⁺ and 5⁺ of the Periodic Table of Elements; m is the valence of Me; X is R₁ or OR₁, R₁ is the same as or different from R, m is either zero or integer number equal to or lower than 3; R and R₁ are hydrocarbon radicals with a number of carbon atoms equal to or lower than 12;

- hydrolyzing the solution in the presence of a catalyst in a hydrolysis reaction to obtain a hydrolysis reaction product;
- optionally removing alcohol formed during the hydrolysis reaction and forming a sol;
- depositing the hydrolysis reaction product on the substrate;
- optionally drying and stabilizing of the vitreous film.

22. (Withdrawn) A process for the preparation of a sol for deposition onto a substrate to form a vitreous film on said substrate comprising:

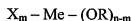
preparing a solution in an aprotic solvent of at least one alkoxide corresponding to the formula



where Me is a metal selected from the group consisting of Group 3⁺, 4⁺ and 5⁺ of the Periodic Table of Elements; m is the valence of Me; X is R₁ or OR₁, R₁ is the same as or different from R, m is either zero or integer number equal to or lower than 3; R and R₁ are hydrocarbon radicals with a number of carbon atoms equal to or lower than 12;

- hydrolyzing the solution in the presence of a catalyst in a hydrolysis reaction to obtain a hydrolysis reaction product;
- removing alcohol formed during the hydrolysis reaction and forming a sol.

23. (Withdrawn) A stable colloidal solution obtained by hydrolyzing a solution in aprotic solvent of at least one alkoxide corresponding to the formula:



where Me is a metal selected from the group consisting of Group 3⁺, 4⁺ and 5⁺ of the Periodic Table of Elements; m is the valence of Me; X is R₁ or OR₁, R₁ is the same as or different from R, m is either zero or integer number equal to or lower than 3; R and R₁ are hydrocarbon radicals with a number of carbon atoms equal to or lower than 12.

24. (Previously Presented)) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 wherein the alkoxide is selected from the group consisting of tetramethyl- orthosilicate, tetraethylorthosilicate, tetrapropylortho-silicate, tetrabutylorthosilicate, ethyltriethoxysilane, methyltrimethoxysilane, methyltriethoxysilane, and mixture thereof.

25. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 where the aprotic solvent is acetone, tetrahydrofuran or dioxane.

26. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 where the solution of the alkoxide or mixture of alkoxides in the aprotic solvent is from 30% to 60% by weight.

27. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 wherein hydrolyzing of the alkoxide is accomplished by adding a controlled quantity of water.

28. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 27 wherein water is added in such a quantity as to maintain the molar ratio H_2O/Me from 0.5 to 5.

29. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 28 where the ratio H_2O/Me is from 1.5 to 4.

30. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 29 where the ratio H_2O/Me is from 2 to 3.

31. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 where hydrolyzing of the alkoxide is accomplished in presence of an acid catalyst selected from the group consisting of mineral and organic acids with K_a of 0.1 to 3.

32. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 31 where the reaction of hydrolyzing is in presence of an aqueous solution of HCl.

33. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 31 where the reaction of hydrolyzing is in presence of a quantity of acid such that a molar ratio alkoxide/acid is from 1/0.001 to 1/1.

34. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 33 where the molar ratio of alkoxide to acid is preferably from 1/0.1 to 1/0.01.

35. (Cancelled)

36. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 where the removal of the alcohol is made by subjecting the sol to partial and controlled desolventization.

37. (Withdrawn) A stable colloidal solution according to made by the process according to Claim 24.

38. (Currently Amended) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 further comprising depositing on substrate by knife coating, ~~deep dip~~ coating or spin-coating.

39. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 further comprising depositing on substrate by spin-coating.

40. (Previously Presented) The process for the preparation and deposition of a vitreous film onto a substrate according to Claim 21 where final drying is at a temperature of 20 to 500°C.

41. (Withdrawn) A vitreous film obtained according to Claim 21.